

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Blue Ridge Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Aquatic Co.  
South Boston (Halifax County), Virginia  
Permit No. BRRO30794

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9VAC5 Chapter 80, Aquatic Co. has applied for a renewal of their Title V Operating Permit for its South Boston, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: DRAFT 9/7/2012\_\_\_\_  
*Patrick Corbett*  
(434) 582-6230

Air Permit Manager: \_\_\_\_\_ Date: \_\_\_\_\_  
*David J. Brown*

Regional Director: \_\_\_\_\_ Date: \_\_\_\_\_  
*Robert J. Weld*

## **FACILITY INFORMATION**

### Permittee

Aquatic Co.  
P. O. Box 117  
South Boston, Virginia 24592

### Facility

Aquatic Co. – South Boston, VA  
1100 Industrial Park Road  
South Boston, Virginia 24592

AFS ID No. 51-083-00037

## **SOURCE DESCRIPTION**

SIC/NAICS 3088/326191 – Aquatic is a manufacturer of bath ware covered by Standard Industrial Classification (SIC) Code 3088. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. This plant produces fiberglass reinforced bath fixture molds and fiberglass reinforced acrylic bathtubs/showers.

Aquatic is a Title V major source for hazardous air pollutants (HAP) and a PSD major source for volatile organic compounds (VOC). The facility has three minor NSR permits: a permit dated November 29, 1984 as amended September 15, 1995, April 7, 2003, April 21, 2005, May 8, 2006, and February 23, 2012 (the 2/23/2012 permit); a permit dated December 9, 1988 as amended December 17, 1993 (the 12/17/93 permit); and a permit dated February 13, 2009.

## **EMISSIONS SUMMARY:**

The 2010 annual emission update has been reviewed and accepted (VOC – 24 tpy, Styrene – 23 tpy).

## **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## **EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility are contained in Section II of the Title V permit. The table represents the current emission units at the facility.

## **EMISSION UNIT APPLICABLE REQUIREMENTS**

The following section discusses requirements for the emissions units at the facility that are subject to Title V permitting. These requirements come from the NSR permits and applicable federal requirements. The conditions are not repeated verbatim from the permit. The regulatory authority for each condition is listed in parentheses () below each condition in the permit.

### **Citations**

The following citations denote the underlying authorities to implement the specific conditions in the NSR permits (9VAC5-50-30, 9VAC5-50-50, 9VAC5-50-260, 9VAC5-80-1180, 9VAC5-80-1210). All other regulatory authorities are directly listed in parentheses below each condition in the permit.

**Section III of Title V Permit** – FRP Line (Ref. G1-G14, G16) and Acrylic Line (Ref. A17-A29B, A31, AG32-AG34)

### **Limitations**

The units in this section are covered by the conditions in the 2/23/2012 permit. These units are also subject to the requirements of Section VII of this permit (40 CFR 63 Subpart WWWW). Portions of the FRP line (G1 – G10) are controlled by a combination concentrator/oxidizer<sup>1</sup>. Capture is achieved by permanent total enclosure according to Method 204 of 40CFR51 Appendix M. The underlying permit also contains pound per hour (lb/hr) and ton per year (TPY) emissions limitations. The lb/hr limits cover both lines; these values, as well as the TPY limits, are calculated using application rates and emission factors.

### **Monitoring and Recordkeeping**

Continuous monitoring of the exhaust flow, concentrator desorb cycle temperature and frequency, and the oxidizer temperature are required in the underlying permit. Weekly visible emission observations are required. Records of the MACT WWWW emission factors used and material throughputs are required. Considering the monitoring of this section and the requirements of Section VII of this permit, the monitoring required for the FRP and Acrylic lines are sufficient to assure compliance with the limitations in this permit.

**Section IV of Title V Permit** – Mold Fabrication Line (Ref. OP1 – OP4)

### **Limitations**

The units in this section are covered by the conditions in the 12/17/93 permit. These units are also subject to the requirements of Section VII of this permit (40 CFR 63 Subpart WWWW). The Mold line is subject to throughput limitations for gel coat and laminate, VOC emission limits, and opacity limits. The spray stations have a limit of 5% opacity reflective of proper operation and maintenance of a spray booth. Emissions are calculated using MACT WWWW emission factors and throughputs.

### **Monitoring and Recordkeeping**

The facility must maintain records of resin throughputs. Opacity for the spray booths must be observed weekly. Records of the MACT WWWW emission factors used and material throughputs are required. Considering the monitoring of this section, the low chance for visible emissions from a spray booth, no history of actual visible emissions from this spray booth, and the MACT requirements of Section VII of this permit, the monitoring required for the Mold Fabrication line is sufficient to assure compliance with

---

<sup>1</sup> The underlying permit requires control by thermal oxidation or approved alternative. Condition III.A.1 of this permit defines the term “RTO” to encompass “thermal oxidation or approved alternative” (i.e., the approved control mechanism, which is a concentrator/oxidizer). This simplifies how the rest of the permit refers to this control mechanism.

the limitations in this permit.

**Section V of Title V Permit** – Acrylic Whirlpool Bathware Line (Ref. OA1-5, OA7-9, OA11)

**Limitations**

Requirements from the underlying NSR permit include emissions limitations with a corresponding recordkeeping and calculation methodologies, and requirements for maintenance of equipment, including scheduling and recordkeeping. The 5% visible emission limit is established pursuant to BACT.

**Monitoring and Recordkeeping**

Condition 3 of the NSR permit establishes periodic monitoring in the form of an approved operation and maintenance plan for the filters controlling particulate from the spray booths. The facility must also perform weekly VE observations. The fabric filters on the grinding and drilling operations must have differential pressure monitoring. The facility must keep records of throughputs, hours of operation, and calculations of emissions on a rolling 12-month basis. In conjunction with the required records and calculations, proper operation and maintenance and weekly visible emissions observations is sufficient to assure compliance with the requirements for the Acrylic Whirlpool line.

**Section VI of Title V Permit** – Facility Wide Conditions

This section notes the approved fuels are natural gas and propane. The facility is required to maintain records of annual fuel usage and emissions calculations for fuel combustion using AP-42 factors.

**Section VII of Title V Permit** – 40 CFR 63 Subpart WWWW

This section contains the requirements of the MACT (Subpart WWWW). The initial compliance date for the facility was April 21, 2006. The resin operations must meet the emission rates and work practices of the MACT, which include Subpart SS requirements for the concentrator/oxidizer. This section outlines those requirements and the MACT required recordkeeping and reporting. The monitoring of the MACT is sufficient to determine compliance with those requirements.

**GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9VAC5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

**Comments on General Conditions**

**B. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the Code of Virginia, and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

**F. Failure/Malfunction Reporting**

Section 9VAC5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9VAC5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9VAC5-20-180 is from the general regulations. All affected facilities are subject to section 9VAC5-20-180 including Title V facilities. Section 9VAC5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9VAC5-20-180 and 9VAC5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

#### **J. Permit Modification**

This general condition cites the sections that follow:

9VAC5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9VAC5-80-190. Changes to Permits.

9VAC5-80-260. Enforcement.

9VAC5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9VAC5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9VAC5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

#### **U. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9VAC5-80-250 and 9VAC5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

#### **Y. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

#### **FUTURE APPLICABLE REQUIREMENTS**

None.

#### **INAPPLICABLE REQUIREMENTS**

In accordance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM), review for CAM applicability has been completed. The three conditions that must be met for an emissions unit to be subject to CAM are:

1. emits or has the potential to emit (in the absence of add-on control devices) quantities of one or more regulated air pollutants that exceed major source thresholds,
2. is subject to one or more emission limitations for the regulated air pollutant(s) for which it is major before control, and
3. uses a control device to achieve compliance with one or more of these emission limitations.

A unit must meet all three conditions to be subject to CAM. The VOC emissions (e.g., styrene) from the facility are subject to 40 CFR 63 Subpart WWWW, a MACT promulgated after November 15, 1990. The particulate matter emissions for each unit in the FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool lines,

and mixing operations exhaust stacks are less than 100 tons/yr, each. Therefore, CAM does not apply to the reinforced plastic bathware manufacturing emission units per 40 CFR 64.2(a)(3) and (b)(i). CAM does not apply to any unit at the facility.

There are no applicable GHG permitting requirements.

#### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. These units are listed in Section VIII of the permit.

#### **CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

#### **PUBLIC PARTICIPATION**

The public notice for this draft Title V permit appeared in the *Gazette Virginian* on September 7, 2012. The public comment period ends on October 9, 2012.